**Practice Sheet**

**Given the following relation R = (A, B, C, D, E, F), and the following dependencies**

**F = {AB 🡪 DE, CD 🡪 E, B 🡪 EF, DF 🡪 AC, BD 🡪 AF}**

**a) Is ABF superkey key for R (Yes or No)? Is it candidate key (Yes or No)?**

b) If R is decomposed into two relations R1 = (A, B, D, F) and R2 = (C, D, E, F). Is this decomposition ***lossless or lossy***? Indicate why?

c) If R is decomposed into two relations R1 = (A, B, D, F) and R2 = (C, D, E, F). Is this decomposition ***dependency preserving***? Show why.